APPARATUS AND METHOD FOR PACKET SCHEDULING

ABSTRACT OF THE DISCLOSURE

In a network router, a tree structure or a sorting network is used to compare scheduling values and select a packet to be forwarded from an appropriate queue. In the

5   tree structure, each leaf represents the scheduling value of a queue and internal nodes of the structure represent winners in comparisons of scheduling values of sibling nodes of the tree structure. CBR scheduling values may first be compared to select a queue and, if transmission from a CBR queue is not timely, a packet may be selected using WFQ scheduling values. The scheduling values are updated to reflect variable packet lengths

10   and byte stuffing in the prior packet. Scheduling may be performed in multiple stages.